ICC Docket Nos. 00-0812
Phase I
IRCA Exhibit No. 1

STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

Verizon North Inc. and Verizon South Inc.	)	
Petition seeking approval of cost studies for unbundled network elements, avoided costs and intrastate switched access services.	)))	Docket Nos. 00-0812

PHASE I
DIRECT TESTIMONY OF

JASON P. HENDRICKS

ILLINOIS RURAL COMPETITIVE ALLIANCE

OCTOBER 12, 2001

Q. Please state your name and business address.

A. My name is Jason P. Hendricks and my business address is 3220 Pleasant Run, Springfield, IL 62707.

Q. By whom are you employed and in what capacity?

A. I am employed by GVNW Consulting, Inc. ("GVNW") as a Management Consultant. GVNW provides consulting services on a wide variety of issues to independent telecommunications companies and their affiliates.

Q. On whose behalf are you filing testimony?

A. I am filing testimony on behalf of the Illinois Rural Competitive Alliance (IRCA), a coalition dedicated to addressing the unique needs of Illinois independent rural CLECs. The IRCA has eleven CLEC members that are either currently providing or intend to soon begin providing competitive local service in the rural exchanges of non-rural telecommunications companies in the State of Illinois. One of the goals of the IRCA is to ensure that the unique needs of rural CLECs are addressed by the Illinois Commerce Commission ("ICC" or "Commission") in proceedings in which the ICC establishes rules and regulations deemed to be of importance to operations of the IRCA members. Unbundled network elements (UNEs) and resale, particularly in the rural exchanges of Verizon, are very important to the successful provisioning of competitive services by the IRCA members. Therefore, the IRCA felt it was imperative to participate in this docket.

Q. Please describe your educational and occupational background.

A. I graduated from the Pennsylvania State University with a Bachelor of Science degree in Economics in 1994, and from the University of Wyoming with a Masters of Science degree in Economics, and a specialization in Regulatory Economics, in 1996. I was employed by the ICC as an Economic Analyst in the Telecommunications Division from 1996 to 1999. As part of my duties at the ICC, I provided expert witness testimony in numerous proceedings including the ICC's investigation into Ameritech Illinois' forward looking cost studies and rates for interconnection, network elements, and transport and termination of traffic (ICC Docket No. 96-0486). A list of the ICC proceedings in which I provided testimony is attached as Appendix A. In addition, I provided verified statements regarding proposed interconnection agreements in over 70 negotiated, arbitrated and preexisting agreement dockets. I also reviewed tariff filings for compliance with state and federal law and led industry workshops that examined every Illinois Administrative Code Part for consistency with the pro-competitive goals of the Telecommunications Act of 1996 ("TA '96").

I joined GVNW in 1999. Since joining GVNW, I have negotiated and implemented interconnection agreements on behalf of a number of rural CLECs. Recognizing that, individually, rural CLECs were at a disadvantage relative to large ILECs in terms of financial and personnel resources that could be devoted to developing a satisfactory interconnection arrangement, I led efforts that resulted in the formation of the IRCA. My duties have also included being an active participant in GVNW's role as administrator and regulatory/legislative advisor of the Rural Independent Competitive Alliance ("RICA"), a nationwide association of rural CLECs dedicated to representing rural CLECs at the federal level. I have also developed

financial analyses and business plans on behalf of CLEC clients. An article I wrote entitled "Does It Pay To Be A CLEC?: Lessons Learned In The Battlefield" was included in the November/December 2000 issue of *Roundtable*, a magazine published by OPASTCO.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to respond to the direct testimonies of Verizon's witnesses and to explain the IRCA's concerns with Verizon's Integrated Cost Model ("ICM"). In addition, I also propose alterations to the labor rates proposed by Verizon consistent with the Commission's decision on labor rates in Dockets 00-0511/0512.

Q. What is your understanding of how this proceeding is organized?

A. It is my understanding that, primarily at the request of Staff, this proceeding has been divided into three phases in order to simplify it by reducing the number of issues in each Phase. As structured, Phase I will address Verizon's proposed access charges and ICM, Phase II will address Verizon's proposed UNE rates, and Phase III will address Verizon's proposed resale discount. Due to the timing of its intervention, the IRCA did not receive notice of the original scheduling conference and was not involved in the establishment and ordering of the three phases. When the IRCA became involved, it learned that the design of the proceeding resulted in the major examination of the ICM in Phase I, with any ruling on the ICM being applied to Phase II and Phase III as well. For example, if the Commission discovered a flaw in an ICM modeling technique in Phase I and ordered Verizon to fix it, the corresponding change would necessitate new cost runs being performed for UNEs and resale in Phases II and III, respectively. The IRCA advised the Staff and Verizon that this design would present a problem

if the IRCA were not allowed to analyze the impact of the ICM on UNEs in Phase I, because, as I explain below, the IRCA does not have a substantial interest in carrier access and therefore is not prepared to analyze ICM solely in terms of how it impacts carrier access. By the same token, the IRCA would object to having the fundamental principles of ICM ruled upon before they were applied to UNE pricing if that preempted the IRCA's ability criticize or seek changes of the ICM as part of Phase II. Finally, the IRCA did not want to face timeliness or relevance objection to data requests and testimony during Phase I directed to the impacts of the ICM on UNE pricing.

As a result of the IRCA's concerns, Staff and Verizon agreed not to object to the IRCA's using the impact of ICM on UNE pricing as a mode of analyzing the ICM in Phase I. Therefore, my analysis of the validity of the model will focus on its modeling of UNEs, which are not associated with the access charges proposed by Verizon in this proceeding.

Q. Will you provide any position on the validity of Verizon's proposed switched access rates?

A. No. My participation in this proceeding is solely limited to representing CLECs on issues of importance to their operations. The CLECs I represent are not large purchasers of Verizon's switched access services and, therefore, I will not focus on Verizon's switched access study. This does not mean that I either agree or disagree with Verion's switched access study; it just means that I choose not to address the issue. However, I do reserve the right to respond to other parties' proposals on special access, since the CLEC clients I represent do purchase local and interconnection trunks, which, according to the CLECs' interconnection agreements, will be priced equal to the tariffed special access rates. Nonetheless, my primary focus in this

proceeding will be on Verizon's UNE studies, and to a lesser extent, Verizon's resale study. Thus, my testimony in Phase I focuses on ICM, particularly the aspects relevant to its modeling of UNEs.

Q. Is it your position that the Commission should not be able to modify its Phase I ruling on ICM in Phases II and III?

A. No. Assuming that Verizon provides all parties with information necessary to properly evaluate ICM in Phase I (I will return to this subject shortly), the Commission should have a pretty good record on ICM and will be able to make a ruling that, at a minimum, allows it to properly rule on the validity of ICM for pricing access services. The record should also provide a good indication of ICM's ability to price UNEs. However, when the UNE studies are investigated in more detail in Phase II, it may be possible that discoveries are made that ICM (assuming it is approved in at least some format in Phase I) incorrectly models certain aspects of the network and, therefore, some further alterations in ICM's modeling techniques must be made in order for it to correctly model the network. If the Commission were to make such a discovery, it should not be prevented by its Phase I order from requiring such modifications (or for that matter even rejecting the use of ICM for establishing UNE rates if the errors discovered are sufficiently substantial). Therefore, I see this Phase I investigation of ICM as a first pass at the model that in no way binds the Commission to strictly adhere to its Phase I decision on the model in subsequent phases of this proceeding.

Q. Have you reviewed ICM and, if so, do you have any concerns with the model?

A. Yes, I have reviewed ICM Version 4.4 and I do have some concerns with the model. First, I have a fundamental disagreement with how the locations of customers are determined. Rather than assuming the build-out of a network to serve the actual locations of customers in Verizon's network, the model assumes the build-out of a network to serve customer locations determined through the use of a proxy methodology estimated by outside vendors. I question the wisdom and accuracy of using such a proxy approach for determining customer locations when Verizon knows exactly where its customers are located.

Second, I have a concern with how the network is "built" to serve the inaccurately determined customer locations. Specifically, I believe that the network is "overbuilt" in the sense that the technological capability assumed to be deployed greatly exceeds the capability of Verizon's current network and the network that Verizon is reasonably likely to deploy on any widespread basis in the foreseeable future. Under Verizon's proposal, CLECs would pay an artificially high cost for a loop due to inflated network capability assumptions and would fail to receive the benefit of the loop for which they would be paying.

Third, due to the above-mentioned assumptions, the UNE loop rate of $26.96 proposed by Verizon would cause a price squeeze because would be nearly $10 higher than Verizon's $16.99 access area B residential rate. If the Commission were to approve Verizon's proposed UNE loop rate, CLECs would be unable to use UNE loops to compete with Verizon.

Q. Please describe how Verizon determines customer locations.

A. Verizon uses a rather complicated proxy methodology for estimating customer locations rather than using actual customer locations (The methodology used by Verizon is described in the Loop Module (Book II) of the ICM Model Methodology attached to the direct testimony of David G. Tucek.) Verizon relies on a number of outside vendors to map customer location, based on 1990 census block data and encoding information, to a 1/200th degree demand unit. The demand units are assigned to wire centers and then overlaid with road and terrain data. At the back end, Verizon's actual line counts per wire center are used to scale the line counts for the demand unit so that the total matches the wire center total.

Although the process used is quite complicated, I question the wisdom of using such an approach and the accuracies of the results produced. Mr. Tucek espouses the virtues of ICM by stating that it "provides estimates of forward-looking costs of provisioning telecommunications services out of its own network in Illinois, as opposed to the costs produced by a proxy model based on assumptions and input values that are not company specific." (Tucek Direct page 5, emphasis added.) However, nothing is more "proxy" in a typical proxy model than the inability to accurately map customer locations. As a matter of fact, inaccurate customer location mapping has been the major sticking point in the acceptance of proxy models by the Commission to accurately measure forward-looking economic costs ("FLECs"). For example, the Commission rejected the use of proxy models to calculate the FLECs of Ameritech and Verizon (then GTE) in Docket 97-0515 when it concluded that:

> company-specific models will yield more accurate FLEC estimates than any proxy model adopted by the FCC because company-specific models rely upon a company's knowledge of customer locations and the costs and material inputs. In contrast, proxy model approximate company-specific information such as customer locations by using publicly available data. (Order at page 15.)

Although ICM is advertised as a company-specific model, the fundamental building block of the network modeled is based on an inaccurate proxy methodology for estimating customer locations. Thus, ICM is the proverbial wolf in sheep's clothing; it is at its core a proxy model dressed up to appear company-specific. The Commission should not accept the use of proxy customer location information when Verizon knows the actual customer location of its customers. To truly be a company-specific model, ICM must use actual customer locations to develop network costs.

Q. Please explain the process you think should be used by Verizon to determine customer locations.

A. Actual customer locations should be modeled based on Verizon's internal documentation used for record-keeping purposes, network upgrade and expansion planning, and service calls. Verizon maintain these documents and relies upon them on a daily basis to run its business. The use of such documentation by ICM would result in much more accurate customer location mapping, thereby leading to more accurate results.

Q. Please explain why you believe that ICM assumes the build-out of an overly expensive network.

A. I believe that ICM assumes the builds-out of an overly expensive network because it assumes a network that would ensure that every customer would have access to a loop that is capable of providing digital services despite the reality that it is probably uneconomical to provide digital capability to every customer, especially those located in the most remote areas. The result of

making such an assumption is a higher loop cost than would otherwise result if the model just assumed the design of the most efficient plain old telephone service (POTS) network.

ICM provides three user-adjustable options for the design for the design of the network. Option 1 restricts the maximum copper loop length to 12-kilofeet and utilizes 24-gauge copper, thereby permitting the transmission of voice grade service as well as data transmissions up to 6 megabits per second (mbps). The UNE loops that Verizon proposes in this proceeding resulted from an ICM run under this option. Option 2 also restricts the maximum copper loop length to 12-kilofeet but utilizes 26-gauge copper, thereby resulting in maximum data transmissions of less the 6 mbps. Option 3 restricts the copper loop length to 18-kilofeet and 24-gauge cable, thereby resulting in maximum data transmission speeds that lower than under option 2. Under all three options, digital loop carriers (DLCs) are assumed to be utilized any time the entire length of the loop is greater than the maximum allowed cooper loop length. When DLCs are assumed, the loop is composed of fiber from the central office to the DLC and copper from the DLC to the customer. (Tucek Direct at pages 24-25.) Regardless of the option used, "ICM places DLC systems to ensure that maximum copper loop length limits are not exceeded and do not impede the provision of advanced services." (Tucek Direct at page 16.)

I question the efficiency of designing a network in which no loop impedes the provision of advanced service and all customers have access to a loop capable of providing digital service.[1]

[1] Despite this statement that all loops are digitally capable, Verizon's description of the K-Mean algorithm, seems to indicate that only a minimum of 98% of customers have access to a digitally capable loop. (Appendix E, ICM Model Methodology, Book II.) Regardless of whether the assumption is 98% or 100%, I still question the efficiency of designing a network in which that many customers would have access to a digitally-capable loop, especially considering the rural nature of some of Verizon's exchanges.

(ICM Model Methodology, Book II, page 7.) The reason the loop can be assumed to be digitally capable results from the maximum loop length restriction imposed in ICM. At a minimum, which option 3 represents, all (or nearly all) customers would be assumed to have loops with copper lengths of 18-kilofeet of less, thereby allowing for the transmission of advanced services (although not at the 6 mbps transmission level proposed by Verizon under option 1). However, Verizon serves many rural exchanges where the population is sparse and the average loop length is likely to be much greater than 18-kilofeet. Given the sparseness of some of Verizon's serving area, it is unlikely to prove economical in the real world to provide digitally capable loops to every customer due to the network upgrades that would be required. For example, in order to meet the 18-kilofeet restriction, the model assumes the placement of many more DLCs than are in the network today. Currently, Verizon has 1,623 DLCs in its network, whereas ICM assumes the placement of 4,370 under options 1 and 2, and 2,011 under option 3. (Verizon response to IRCA data requests 2.04 and 2.05.) If Verizon were to increase DLCs by such a large number in the real world, there would be many DLCs for which costs that would not be fully recovered due to severe underutilization. Considering that the minimum amount of lines that a DLC can serve is 24, the sparseness of population in some of Verizon's exchanges, and the minimum 18-kilofeet restriction, it is not hard to imagine that many of the DLCs assumed to be placed would serve only 1, 2 or a handful of customers. In the real world, that would not be an efficient placement of DLCs, and it is highly unlikely that Verizon will actually build its network out this way. Yet, ICM allows for such inefficient results under its hypothetical network. The problem is exacerbated under Verizon's actual proposal, a hypothetical network design where the maximum copper loop length is 12-kilofeet, due to the uneconomical placement of even more DLCs than under the 18-kilofeet restriction.

The recently enacted telecommunications law in Illinois includes a provision that every incumbent local exchange carrier ("ILEC") must offer or provide advanced service to 80% of its customers within five years unless the ILEC is granted a waiver from this provision. (220 ILCS 5/13-517.) Were it not for the recognition that it may not be economically feasible to do so, the law would have required each ILEC to offer or provide advanced service to every customer rather than 80% of the ILEC's customers. In addition, the law would not have allowed for a waiver, as it does, if a carrier can prove it is not economically feasible to meet the 80% requirement. At this point Verizon has not indicated whether it will meet the requirement or seek a waiver, let alone whether it seeks to exceed the requirement by 20%, as it assumes it will under ICM. In addition, Verizon states that its cost study is only appropriate for three years, which would be December 2003, since the study was filed in December 2000. (Verizon Response to Staff Data Request JZ 1.3.) If, during this proceeding, Verizon can make such an assurance that it will either meet or exceed the advanced service requirement by December 2003, Verizon should be allowed to develop forward-looking costs under ICM using the level of digital capability that it actually commits to deploy by that time.

Q. What are the implications of ICM assuming an "overbuilt" network?

A. ICM's overly expensive network design would result in a double whammy for CLECs. Not only would a CLEC pay for a loop that is overpriced due the "overbuilt" network assumptions, but it would also fail to receive, in every instance, the benefit of a digitally capable loop. In addition, in many instances, CLECs will actually be forced, under Verizon's proposal, to pay Verizon for loop conditioning charges, above and beyond the loop cost, to remove impediments

to the transmission of digital service over the same loops that Verizon claims to be digitally capable. Verizon can't have it both ways. Either the loop is digitally capable of providing of advanced services or it is not. Verizon should not be allowed to inflate loop prices due to an assumption that all loops are digitally capable and then turn around and charge a CLEC an additional loop conditioning charge for those loops that are not, in fact, digitally capable.

Q. Please explain what you envision to be a properly designed network for purposes of calculating Verizon UNE loop costs?

A. A properly designed network for purposes of calculating UNE loops should comply with TELRIC rules and be forward-looking, within reason. Verizon's version of forward-looking is so far removed from reality that it leads to the perverse results mentioned above. In order to be what I consider a properly designed company-specific FLEC model, the network assumed should be based on Verizon's actual network, given Verizon's expected network upgrades, modifications and retirements during the lifetime of the cost study, which under Verizon's proposal is between now and December 2003.

Q. What do ICM's inaccurate customer location and overpriced network assumptions mean to competitive entry?

A. I believe that the use of inaccurate customer location and overpriced network assumptions leads to an overestimation of UNE loop costs and, ultimately, to the overpricing of UNE loops. For example, Verizon proposes a UNE loop rate of $26.96, which is nearly $10 higher than Verizon's $16.99 access area B residential rate. If Verizon's proposal were granted, CLECs

would face a price squeeze and would essentially be precluded from competing with Verizon through the use of UNE loops. Keep in mind that loops are just one component of providing local service. CLECs also need to recover switching interoffice transport costs, personnel expenses, and other costs in order to compete with Verizon. CLECs couldn't even begin to recover these other costs given that the loop cost alone greatly exceeds what the CLEC can expect to recover from the end user for local service. Even with the incorporation of the additional $4.35 federal subscriber line charge that Verizon charges its customers, the total local service rate only equals $21.35. Such disparate results between the UNE loop rate and the local service rate should raise red flags that something is not right in Verizon's study, especially considering that Verizon does not receive universal service support and has not demonstrated that its local rates are being subsidized. Granted, there may be other assumptions in Verizon's cost studies, separate from the ICM modeling techniques, that result in an overestimation of UNE loop costs (I intend to address the Verizon cost study assumptions in the UNE phase of the proceeding). However, I believe that main driver of the overestimation of costs are the non-user adjustable customer location and network technology assumptions inherent in ICM.

Q. Given your concerns with ICM, what recommendation do you make to the Commission?

A. At this time I am unable to make a recommendation because Verizon has failed to provide all of the information that I need to complete my analysis of ICM and to develop a final position on the validity of the model. In particular, I intend to compare ICM to Verizon's forward-looking cost model, COSTMOD, which has already been approved by the Commission. However, Verizon has failed to provide the information that I need to make such a comparison.

On or about July 13th, the IRCA submitted a data request to Verizon asking it to provide results of a COSTMOD study performed by Verizon in response to ICC Docket 97-0515, as well as a copy of COSTMOD and the user manuals and supporting documentation applicable to COSTMOD. Although Verizon has undertaken to provide responsive data, it still has not provided the IRCA with its requested information. It is my position that prior to accepting the use of ICM to replace COSTMOD, the Commission should fully compare the two models in order to determine the accuracy of ICM and to determine if it is truly necessary to switch models. As the Commission stated in Docket 97-0515, it has "reviewed the COSTMOD run and results on several occasions and determined that this model provides accurate estimates of the forward-looking cost of providing service by GTE." (Order at page 20.) In order to determine if COSTMOD still provides accurate forward-looking costs of service, it is necessary to compare it to ICM. Simultaneous with the filing of this testimony, the IRCA is filing a Motion to Compel in order to obtain the information requested in IRCA Data Request 2.01. Given the delays in producing the data, it is my understanding that Verizon will not object to me providing the COSTMOD/ICM analysis in my rebuttal testimony. Therefore, I will provide a more thorough analysis of ICM and a recommendation to the Commission in my rebuttal testimony.

Q. Do you have any other recommendations on Verizon's costs studies that you would like to make at this time?

A. Yes, I recommend that the Commission reach the same conclusion on loaded labor rates that it reached in Dockets 00-0511/0512. Particularly, Verizon should be ordered to remove the following from its loaded labor rates: direct support, direct supervision, indirect supervision

and support functions, tools, motor vehicles, dispatch, and direct departmental expenses. Thus, consistent with the Commission's previous decision, Verizon's loaded labor rates should only include direct basic, overtime premium, paid absence, and benefits. (Order at pages 20-21.)

Q. Does this conclude your direct testimony?

A. Yes.

Previous ICC Testimony of Jason P. Hendricks

Proceeding	
ICC Docket 96-0486	Ameritech Interconnection, UNE, and Collocation Pricing
ICC Dockets 97-0404/0519/0525	CLEC-Ameritech Reciprocal Compensation Complaints
ICC Docket 97-0515	ICC Investigation Into USF Forward-Looking Costs
ICC Dockets 97-0601/0602	ICC Investigation Into USF and Access Charges
ICC Docket 97-0633	Interim Local Number Portability Pricing
ICC Docket 97 AB-002	Intermedia/Ameritech Arbitration
ICC Docket 97 AB-004	McLeodUSA/Ameritech Arbitration
ICC Docket 98-0198	AT&T/Ameritech Interconnection Agreement Complaint
ICC Dockets 98-0200/0537	GTE EAS Complaint
ICC Docket 98-0321	Sale of Exchanges by Centel to Gallatin River
ICC Docket 98-0526	Focal-Ameritech Interconnection Agreement Complaint
ICC Docket 98-0606	GTE Rate Rebalancing
ICC Dockets 98-0770/0771	ICC Investigation Into Ameritech's Build-Out Tariffs
ICC Docket 98-0866	GTE-Bell Atlantic Merger Review
ICC Dockets 00-0511/0512	ICC Investigation into Verizon Collocation Tariffs